

AMENDMENT TO THE CLAIMS

1. (Cancelled).
2. (Currently Amended) A method comprising:
establishing a communication channel between a first transceiver and a second transceiver in low power mode;
determining, at the first transceiver, a training parameter in response to establishing the communication channel in the low power mode;
performing training, at the first transceiver, based at least on the training parameter; and
providing the training parameter that is used in training of the first transceiver to the second transceiver.
3. (Previously presented) The method of claim 2, wherein establishing the channel includes establishing the channel with the smallest amount of power acceptable.
4. (Previously Presented) The method of claim 2, wherein the low power mode includes a cutback in the range of 0-30 dB.
5. (Previously Presented) The method of claim 2, wherein determining the training parameter includes determining a phase distortion of the communication channel.
6. (Previously Presented) The method of claim 2, wherein determining the training parameter includes determining an amplitude distortion of the communication channel.

7. (Previously Presented) The method of claim 2, wherein determining the training parameter includes determining a transmitter characteristic of the second transceiver using the communication channel.

8. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a symbol timing of the transmitter.

9. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a carrier frequency of the transmitter.

10. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a carrier phase of the transmitter.

11. (Previously Presented) The method of claim 2, further including providing a training parameter to the first transceiver by the second transceiver.

12. (Previously presented) An apparatus for communicating with a transceiver, comprising:

a first logic being capable of establishing a communication channel with the transceiver

in a low power mode; and

a second logic being capable of

determining a training parameter in response to establishing the communication channel in the low power mode;

performing training based at least on the training parameter; and
providing the training parameter to the transceiver.

13. (Original) The apparatus of claim 12, further including a third logic being capable of transmitting and receiving data with the transceiver.

14. (Original) The apparatus of claim 13, wherein the first logic is capable of establishing the channel with the smallest amount of power acceptable

15. (Original) The apparatus of claim 13, wherein the low power mode includes a cutback in the range of 0-30 dB.

16. (Original) The apparatus of claim 13, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining a phase distortion of the communication channel.

17. (Original) The apparatus of claim 16, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining an amplitude distortion of the communication channel.

18. (Original) The apparatus of claim 17, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining a transmitter characteristic of the second transceiver using the communication channel.

19. (Original) The apparatus of claim 18, wherein the transmitter characteristic of the second transceiver includes determining a carrier frequency of the transmitter.

20. (Original) The apparatus of claim 19, wherein the transmitter characteristic of the second transceiver includes determining a carrier phase of the transmitter.

21. (Previously presented) A system, comprising:

a first transceiver; and

a second transceiver capable of establishing a communication channel with the first transceiver in a low power mode;

determining the training parameter in response to establishing the communication channel in the low power mode;

performing training based at least on the training parameter; and

providing the training parameter to the first transceiver.

22. (Original) The system of claim 21, wherein the first transceiver is a DSL modem.

23. (Original) The system of claim 22, wherein the second transceiver is a DSL modem.

24. (Previously Presented) The system of claim 23, wherein the second transceiver is capable of establishing the channel with the smallest amount of power acceptable.

25. (Previously Presented) The system of claim 23, wherein the second transceiver being capable of determining the training parameter includes the second transceiver being capable of determining at least one of phase distortion and amplitude distortion of the communication channel.

26. (Previously Presented) The system of claim 25, wherein the second transceiver being capable of determining the training parameter includes the second transceiver being capable of determining a transmitter characteristic of the second transceiver using the communication channel.

27. (Original) The system of claim 26, wherein the transmitter characteristic of the first transceiver includes determining at least one of carrier frequency, carrier phase, and symbol timing of the transmitter.

28. (Previously presented) An apparatus, comprising:

- means for establishing a communication channel between a first transceiver and a second transceiver in low power mode;
- means for determining training parameters in response to establishing the communication channel in the low power mode;
- means for performing training, at the first transceiver, based at least on the training parameter; and
- means for providing the training parameters to the second transceiver.

29. (Previously Presented) The method of claim 1, wherein establishing the communication channel in the low power mode comprises iteratively increasing a power level between the first and second transceiver until a successful connection is established.

30. (Previously Presented) The method of claim 1, wherein establishing the communication channel in the low power mode comprises selecting a power level based on previously stored priori power level estimates.

31. (Previously Presented) The apparatus of claim 12, wherein the second logic is adapted to at least one of iteratively increase a power level until a successful connection is established with a remote receiver and selecting a power level based on previously stored priori power level estimates.

32. (Previously Presented) The system of claim 21, wherein the second transceiver is adapted to at least one of iteratively increase a power level until a successful connection is established with a remote transceiver and selecting a power level based on previously stored priori power level estimates.

33. (Cancelled)

34. (Cancelled)

35. (Previously presented) The system of claim 21, wherein the first transceiver provides a training parameter to the second transceiver.

36. (Previously presented) The apparatus of claim 12, wherein the transceiver provides a training parameter to the first logic.